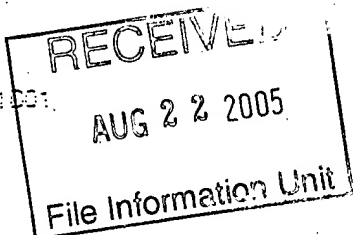


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Application Number

08-332046

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Nov 1, 1994

Paper No.

#61

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B. Rhodes

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BILL RHODES

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Registration Number, if applicable

703-413-3667

Telephone Number

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US006545142B1

**(12) United States Patent**  
**Winter et al.****(10) Patent No.: US 6,545,142 B1**  
**(45) Date of Patent: Apr. 8, 2003****(54) SINGLE DOMAIN LIGANDS, RECEPTORS  
COMPRISING SAID LIGANDS, METHODS  
FOR THEIR PRODUCTION, AND USE OF  
SAID LIGANDS AND RECEPTORS****(75) Inventors:** Gregory Paul Winter, Cambridge  
(GB); Elizabeth Sally Ward,  
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Cambridge (GB)**(73) Assignee:** Medical Research Council of the  
United Kingdom, London (GB)**(\*) Notice:** Subject to any disclaimer, the term of this  
patent is extended or adjusted under 35  
U.S.C. 154(b) by 0 days.**(21) Appl. No.: 09/722,364****(22) Filed: Nov. 28, 2000****Related U.S. Application Data****(60)** Continuation of application No. 08/470,031, filed on Jun. 6,  
1995, now Pat. No. 6,248,516, which is a division of  
application No. 08/332,046, filed on Nov. 1, 1994, now  
abandoned, which is a continuation of application No.  
07/796,805, filed on Nov. 25, 1991, now abandoned, which  
is a division of application No. 07/580,374, filed on Sep. 11,  
1990, now abandoned.**(30) Foreign Application Priority Data**

|               |      |                 |
|---------------|------|-----------------|
| Nov. 11, 1988 | (GB) | 8826444         |
| Mar. 16, 1989 | (GB) | 8906034         |
| Apr. 22, 1989 | (GB) | 8909217         |
| May 15, 1989  | (GB) | 8911047         |
| Jun. 2, 1989  | (GB) | 8912652         |
| Jun. 16, 1989 | (GB) | 8913900         |
| Aug. 15, 1989 | (GB) | 8918543         |
| Nov. 13, 1989 | (GB) | PCT/GB89/013444 |

**(51) Int. Cl.<sup>7</sup> C07H 21/04****(52) U.S. Cl. 536/24.33; 536/23.53****(58) Field of Search 536/24.33, 23.53****(56) References Cited****U.S. PATENT DOCUMENTS**

|             |         |                   |
|-------------|---------|-------------------|
| 4,356,270 A | 10/1982 | Itakura           |
| 4,642,334 A | 2/1987  | Moore et al.      |
| 4,656,134 A | 4/1987  | Ringold           |
| 4,683,195 A | 7/1987  | Mullis et al.     |
| 4,683,202 A | 7/1987  | Mullis            |
| 4,704,692 A | 11/1987 | Ladner            |
| 4,711,845 A | 12/1987 | Gelfand et al.    |
| 4,714,681 A | 12/1987 | Reading           |
| 4,800,159 A | 1/1989  | Mullis et al.     |
| 4,806,471 A | 2/1989  | Molin et al.      |
| 4,816,397 A | 3/1989  | Boss et al.       |
| 4,889,818 A | 12/1989 | Gelfand et al.    |
| 4,937,193 A | 6/1990  | Hinchliffe et al. |

(List continued on next page.)

**FOREIGN PATENT DOCUMENTS**

|    |             |         |
|----|-------------|---------|
| CA | 2016841     | 11/1990 |
| CA | 2019323     | 12/1990 |
| EP | A 0 120 694 | 10/1984 |

|    |              |         |
|----|--------------|---------|
| EP | A 0 125 023  | 11/1984 |
| EP | 0 194 276 B1 | 9/1986  |
| EP | A 0 200 362  | 12/1986 |
| EP | 0 201 184 B1 | 12/1986 |
| EP | A 0 239 400  | 9/1987  |
| WO | WP 86/01533  | 3/1986  |
| WO | WO 87/02671  | 5/1987  |

(List continued on next page.)

**OTHER PUBLICATIONS**

Inbar et al., PNAS-USA, 69, 2659-2662, 1972.  
 Amit et al., Science, 233, 747-753, 1986.  
 Satow et al., J. Mol. Biol. 190, 593-604, 1986.  
 Colman et al., Nature, 326, 358-363, 1987.  
 Sheriff et al., PNAS-USA, 84, 8075-8079, 1987.  
 Padlin et al., PNAS-USA, 86, 5938-5942, 1989.  
 Skerra and Plückthun, Science, 240, 1038-1041, 1988.  
 Bird et al., Science, 242, 423-426, 1988.  
 Huston et al., PNAS-USA, 85, 5879-5883, 1988.  
 Porter et al., J. Cell. Physiology, 67, 51-64, 1966.  
 Jatón et al., Biochemistry, 7, 4185-4195, 1968.  
 Rockey, J., J. Exp. Med., 125, 249-275, 1967.  
 Stevenson, Biochem. J., 133, 827-836, 1973.  
 Edmundson et al., Biochemistry, 14, 3953-3961, 1975.  
 Rossman et al., Nature, 317, 145-153, 1985.  
 Saiki et al., Science, 230, 1350-1354, 1985.  
 Larrick, et al., Biochem. Biophys. Res. Comm., 160,  
 1250-1265, 1989.  
 Orlandi et al., PNAS-USA, 86, 3833, 1989.  
 Yon and Fried, Nuc. Acids, Res. 17, 4895, 1989.  
 Fields and Song, Nature, 340, 245-246, 1989.  
 Baldwin and Schultz, Science, 245, 1104-1107, 1989.  
 Menard et al., Cancer Res., 43, 1295-1300, 1983.  
 Bosslet et al., Eur. J. Nuc. Med., 14, 523-528, 1988.  
 Bosslet et al., Cancer Immunol. Immunother., 23, 185-191,  
 1986.  
 Bremer et al., J. Biol. Chem., 259, 14773-14777, 1984.  
 Griffiths & Milstein, Hybridoma Technology in the Bio-  
 sciences and Medicine, 103-115, 1985.  
 Jones et al., Nature, 321, 522-525, 1986.  
 Zoller & Smith, Nuc. Acids Res., 10, 6487-6500, 1982.  
 Carter et al., Nuc. Acids Res., 13, 4431-4443, 1985.  
 Sanger et al., PNAS-USA, 74, 5463-5467, 1977.  
 Yannisch-Perron et al., Gene, 33, 103-119, 1985.  
 Riechmann et al., Nature, 332, 323-327, 1988.

(List continued on next page.)

*Primary Examiner*—James Ketter*(74) Attorney, Agent, or Firm*—Nixon & Vanderhye P.C.**(57) ABSTRACT**

The present invention relates to single domain ligands derived from molecules in the immunoglobulin (Ig) superfamily, receptors comprising at least one such ligand, methods for cloning, amplifying and expressing DNA sequences encoding such ligands, preferably using the polymerase chain reaction, methods for the use of said DNA sequences in the production of Ig-type molecules and said ligands or receptors, and the use of said ligands or receptors in therapy, diagnosis or catalysis.

**2 Claims, 23 Drawing Sheets**